

1 What is claimed is:

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3 1. An isolated nucleic acid molecule selected from the group consisting of:

4 a) a nucleic acid molecule comprising a nucleotide sequence which is at least
5 99% identical to the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3;

6 b) a nucleic acid molecule comprising a fragment of at least 300 nucleotides of
7 the nucleotide sequence of SEQ ID NO: 1, SEQ ID NO:3;

8 c) a nucleic acid molecule which encodes a polypeptide comprising the amino
9 acid sequence of SEQ ID NO:2;

10 d) a nucleic acid molecule which encodes a fragment of a polypeptide
11 comprising the amino acid sequence of SEQ ID NO:2, wherein the fragment comprises at
12 least 15 contiguous amino acids of SEQ ID NO: 2; and

13 e) a nucleic acid molecule which encodes a naturally occurring allelic variant of
14 a polypeptide comprising the amino acid sequence of SEQ ID NO:2, wherein the nucleic
15 acid molecule hybridizes to a nucleic acid molecule comprising SEQ ID NO: 1, 3, or a
16 complement thereof, under stringent conditions.

17
18 2. The isolated nucleic acid molecule of claim 1, which is selected from the
19 group consisting of:

20 a) a nucleic acid comprising the nucleotide sequence of SEQ ID NO: 1, SEQ ID
21 NO:3; and

22 b) a nucleic acid molecule which encodes a polypeptide comprising the amino
23 acid sequence of SEQ ID NO:2.

24
25 3. The nucleic acid molecule of claim 1 further comprising vector nucleic acid
26 sequences.

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28 4. The nucleic acid molecule of claim 1 further comprising nucleic acid
29 sequences encoding a heterologous polypeptide.

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31 5. A host cell which contains the nucleic acid molecule of claim 1.

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33 6. The host cell of claim 5 which is a mammalian host cell.

7. A non-human mammalian host cell containing the nucleic acid molecule of claim 1.

8. An isolated polypeptide selected from the group consisting of:

a) a polypeptide which is encoded by a nucleic acid molecule comprising a nucleotide sequence which is at least 99% identical to a nucleic acid comprising the nucleotide sequence of SEQ ID NO: 1, SEQ ID NO:3, or a complement thereof.

b) a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, wherein the polypeptide is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule comprising SEQ ID NO: 1, SEQ ID NO:3, or a complement thereof under stringent conditions; and

c) a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:2.

9. The isolated polypeptide of claim 8 comprising the amino acid sequence of SEQ ID NO:2.

10. The polypeptide of claim 8 further comprising heterologous amino acid sequences.

11. An antibody which specifically or selectively binds to a polypeptide of claim 8.

12. A method for producing a polypeptide selected from the group consisting of:

a) a polypeptide comprising the amino acid sequence of SEQ ID NO:2;

b) a polypeptide comprising a fragment of the amino acid sequence of SEQ ID NO:2, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:2; and

c) a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, wherein the polypeptide is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule comprising SEQ ID NO:1, SEQ ID NO:3, or a complement thereof under stringent conditions;

comprising culturing the host cell of claim 5 under conditions in which the nucleic acid molecule is expressed.

13. A method for detecting the presence of a polypeptide of claim 8 in a sample, comprising:

- a) contacting the sample with a compound which selectively binds to a polypeptide of claim 8; and
- b) determining whether the compound binds to the polypeptide in the sample.

14. The method of claim 13, wherein the compound which binds to the polypeptide is an antibody.

15. A kit comprising a compound which selectively binds to a polypeptide of claim 8 and instructions for use.

16. A method for detecting the presence of a nucleic acid molecule of claim 1 in a sample, comprising the steps of:

- a) contacting the sample with a nucleic acid probe or primer which selectively hybridizes to the nucleic acid molecule; and
- b) determining whether the nucleic acid probe or primer binds to a nucleic acid molecule in the sample.

17. The method of claim 16, wherein the sample comprises mRNA molecules and is contacted with a nucleic acid probe.

18. A kit comprising a compound which selectively hybridizes to a nucleic acid molecule of claim 1 and instructions for use.

19. A method for identifying a compound which binds to a polypeptide of claim 8 comprising the steps of:

- a) contacting a polypeptide, or a cell expressing a polypeptide of claim 8 with a test compound; and
- b) determining whether the polypeptide binds to the test compound.

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2 20. The method of claim 19, wherein the binding of the test compound to the
3 polypeptide is detected by a method selected from the group consisting of:

- 4 a) detection of binding by direct detecting of test compound/polypeptide
5 binding;
6 b) detection of binding using a competition binding assay;
7 c) detection of binding using an assay for 33449-mediated signal transduction.

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9 21. A method for modulating the activity of a polypeptide of claim 8 comprising
10 contacting a polypeptide or a cell expressing a polypeptide of claim 8 with a compound
11 which binds to the polypeptide in a sufficient concentration to modulate the activity of the
12 polypeptide.

13
14 22. A method for identifying a compound which modulates the activity of a
15 polypeptide of claim 8, comprising:

- 16 a) contacting a polypeptide of claim 8 with a test compound; and
17 b) determining the effect of the test compound on the activity of the polypeptide
18 to thereby identify a compound which modulates the activity of the polypeptide.